



[technet.microsoft.com/en-us/aa996118\(EXCHG.65\).aspx](http://technet.microsoft.com/en-us/aa996118(EXCHG.65).aspx) - [Cached](#) - [Similar](#)

5. [SQL Server 2000 I/O Basics](#)

Jan 21, 2005 ... Earlier versions of SQL Server use 2-KB **data** and **log pages**. ... SQL Server 7.0 and SQL Server 2000 Logging and **Data Storage** All SQL Server **transaction log** and database file I/O is It is a clear sign that the **page** was changed, **flushed** to disk, and **read** back in; however, the **change** was not ...

technet.microsoft.com/en-us/library/cc966500.aspx - [Cached](#) - [Similar](#)

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6. [Transaction log - Wikipedia, the free encyclopedia](#)

In the field of databases in computer science, a **transaction log** (also database log or ... Physically, a log is a file of updates done to the database, stored in stable **storage**. ... Update Log Record notes an update (**change**) to the database. ... If all dirty **pages** are **flushed** while creating the checkpoint (as in ...

en.wikipedia.org/wiki/Transaction_log - [Cached](#) - [Similar](#)

7. [Extensible Storage Engine - Wikipedia, the free encyclopedia](#)

An ESE database may contain up to 232 **pages**, or 16 terabytes of **data**, Synchronously **flushing** the **log** makes ESE transactions **durable**. ... Since a **transaction** may make changes based on **data read** that has already been updated in ... Modifications of the copy **buffer** do not automatically **change** the stored **data**. ...

en.wikipedia.org/wiki/Extensible_Storage_Engine - [Cached](#) - [Similar](#)

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8. [\[PDF\] Modular Data Storage with Anvil](#)

File Format: PDF/Adobe Acrobat - [Quick View](#)

by M Mammarella - [Related articles](#)

Many **data storage** layouts only add or **change read-only**. dTables, which are significantly easier Client code chooses start and end of each **transaction** ...

www.sigops.org/sosp/sosp09/slides/mammarella-slides-sosp09.pdf - [Similar](#)

9. [\[PDF\] Modular Data Storage with Anvil](#)

File Format: PDF/Adobe Acrobat - [Quick View](#)

by M Mammarella - [Related articles](#)

a **persistent commit log** (like the Anvil **transaction** library's system journal), an **in-memory buffer** (like (although, for example, a truly **read-only data store** wouldn't need one). to explicitly **flush** the Anvil **transaction** (forcing synchronous ... actions

durable. This makes Anvil transactions lightweight, ...

www.sigops.org/sosp/sosp09/papers/mammarella-sosp09.pdf - [Similar](#)

10. OTN Discussion Forums : About Log Buffer writhing... ...

You can force the **buffer** to be **flushed** at any time simply by executing a **durable** commit within the **datastore**. A **durable** commit flushes all **log** stands ...

forums.oracle.com/forums/thread.jspa?threadID=1020060&tstart... - [Cached](#)

11. MySQL :: InnoDB 1.1 for MySQL 5.5 User's Guide (Early Adopter ...)

These terms are commonly used in information about the InnoDB **storage** engine. ... Instead of **flushing** all modified **pages** from the **buffer** pool to the **data** files For the InnoDB Hot Backup product, the file name of the binary **log** and the A SQL statement that ends a **transaction**, making permanent any changes ...

dev.mysql.com/doc/innodb-plugin/1.1/en/glossary.html - [Cached](#)

12. MySQL :: MaxDB series: Transactions

MaxDB does not have different **storage** engines like the MySQL Server. Undo information are stored by MaxDB on the **data** volumes. ... made by the **transaction** must be stored in a persistant, **durable** medium. ... Therefore it is great if you do not need to **flush** all modified **pages** from the **buffer** to the disk in case ...

dev.mysql.com/tech-resources/.../maxdb-transactions.html - [Cached](#) - [Similar](#)

13. ADVANCED DATA MANAGEMENT FOR MMOG

Page 1 memory space and/or proxy **data** server for real-time **read** response. ... memory based **transaction log** buffers which are asynchronously **flushed** to the disk ... treat them each as a virtual **datastore**. SQL92 type indexed queries can be to automatically **change** modes to provide synchronous **buffer flush** on ...

www.versant.com/developer/.../objectdatabase/.../versant_in_mmog.pdf - [Similar](#)

14. General connection attributes

An implicit **transaction** commit is done before and after execution of DDL statements. The **log buffer** is shared among all connections and contains **log** records ... 1 - Connects to **data store** in **read** committed isolation mode (default). Scripting on this **page** enhances content navigation, but does not **change** ...

www.filibeto.org/sun/lib/nonsun/oracle/11.2.0.1.../tref155.htm - [Cached](#)

15. Using JMS/XLA for Event Management

Persistent-mode XLA also allows multiple readers to access **transaction log** ... XLA filters out records associated with changes to the **data store** that have ... the **read** position of an XLA subscriber application in the **transaction log** Scripting on this

page enhances content navigation, but does not **change** the ...
duke.htl-leonding.ac.at/~t.stuetz/download/.../jmsxla_event.htm - Cached

16. Atomic Consistent Isolated Durable

BullAnt have a fully **persistent** OO Virtual Machine and language which guarantees ...
A **transaction** maintains **data** integrity constraints if, when starting with a mean the **data** itself, as another client may modify **change** it again in the future, ... and only after the logs are all right (including **flushing** the OS ...
c2.com/cgi/wiki?AtomicConsistentIsolatedDurable - Cached

17. [PDF] Lightweight Recoverable Virtual Memory

File Format: PDF/Adobe Acrobat - Quick View
Page 1 ... Goal: allow Unix applications to manipulate **persistent data** structures (such ... i.e. they **change** at the time of the crash from "all" to "nothing" even ... segment (master copy) and VM backing **store** (**durable** temp copy) => can ... o Inter-
transaction: Coalesce no-**flush** log records at (**flush**) commit time. ...
www.eecs.berkeley.edu/~brewer/cs262/Lec-LRVM.pdf

18. [PDF] Stasis: Flexible Transactional Storage - Electrical Engineering ...

File Format: PDF/Adobe Acrobat - Quick View
by R Sears - Cited by 16 - Related articles
persistent data structures [20, 32]. We expect that Stasis ... dating portions of **durable storage**. These small atomic op(**data**) invoke redo write log undo/redo update **page read** memory The update/**flush** variant allows the **buffer** manager's records in the **transaction log**. Assuming log fragmen- ...
www.eecs.berkeley.edu/~sears/publications/Stasis OSDI.pdf

19. Rhino.Queues.Storage.Disk

Aug 1, 2008 ... **Persistent Queue** is a singleton, which allow you to create sessions, ... You can see the **Flush()** call there. This call persist the actual enqueueing or dequeuing. ... Once all the items has been **read** from a file, and no more can be ... No **data** was written to the **transaction log** about all the entries ...
ayende.com/Blog/archive/.../Rhino.Queues.Storage.Disk.aspx - Cached - Similar

20. The Five-Minute Rule 20 Years Later - ACM Queue

We also assume that **page** tracking must be as **persistent** as the **data**; thus, a **buffer** pool's ... because its short access times permit very fast **transaction** commit. The pointer **change** in the parent **page** is logged in the recovery **log**, which dirty **pages** are **flushed** from the **buffer** pool to **persistent storage**. ...
queue.acm.org/detail.cfm?id=1413264 - Cached

21. [imqbrokerd\(1M\) – start a Message Queue broker instance \(man pages ...\)](#)

Mar 11, 2004 ... Back up a Master Broker's configuration **change** record to **fileName** Delete the instance configuration file, **log files**, **data store**, and other files and directories ... Clear all **persistent data** in the **data store**, including messages, **durable** subscriptions, and **transaction** information store.
docs.sun.com/app/docs/doc/816-5166/imqbrokerd-1m?a... - [Cached](#) - [Similar](#)

22. [I Want a New Data Store « Jeremy Zawodny's blog](#)

Apr 27, 2010 ... Front Page · About · Testing Page ... **Persistent** indexes to speed our most common queries. **change** the title to "I want a new **datastore** : 5k bounty (each)" ... we have quickly grown the **log data** and eventually hit barriers as ... However having your **data** in a **datastore** like Hadoop and being ...
blog.zawodny.com/2010/04/27/i-want-a-new-data-store/ - [Cached](#)

23. [\[PDF\] Data Management for Military and Aerospace Embedded Systems](#)

File Format: PDF/Adobe Acrobat - [Quick View](#)

For example, the **transaction log** can be written to **persistent storage** either ... on-disk database will perform many writes per transaction for **data pages**, ...
docs.huihoo.com/.../Data-Management-for-Military-and-Aerospace-Embedded-Syst.pdf
- [Similar](#)

24. [Dr Dobbs - High-Performance Data Management in Java](#)

High-performance **data** management involves on-disk **persistent storage**, The internal nodes comprise the map to the **data** in the on-disk **log** files that was locks and transactions (in which case, one random **read** is made per **transaction**) ... show the overhead necessary to make sure that the **data** is **durable**. ...
www.drdobbs.com/184406147 - [Cached](#)

25. [Berkeley DB Reference Guide: Transaction tuning](#)

Berkeley DB Reference Guide: Berkeley DB Transactional Data Store Applications ... release **read** locks on cursors as soon as the **data page** is nolonger referenced. threads of control must wait until those **log** records have been **flushed** to disk. ... In these cases, increasing the size of the **log buffer** can increase ...
sepp.oetiker.ch/subversion-1.6.4-rp/ref/transapp/tune.html - [Cached](#)

26. [The Berkeley DB Package: DB 4.6.21 Change Log](#)

[#15309]; Fix a bug where memp_trickle attempts to **flush** an infinite number ... Concurrent **Data Store** Changes: ... but take slightly more processing time to **read** and write. ... corruption when the sending of a bulk **buffer** resulted in an error. ... [#15386]; **Change transaction** checkpoint to wait only for **pages** being ...

sepp.oetiker.ch/subversion-1.4.6-rp/ref/changelog/4.6.html - [Cached](#)

27. You Had Me At EHLO... : Exchange Server 2007 SP1 ESE Changes - Part 1

Nov 30, 2007 ... Atomic - This means that a **transaction state change** is all or nothing. ... Within the database, **data** is stored in 8 KB database **pages**, ... As the database **pages** are changed, the **log buffer** is notified to commit the **change**, A more efficient dirty **page flushing** model for the **buffer manager**, ...

msexchangeproducts.com/archive/2007/11/30/447640.aspx - [Cached](#) - [Similar](#)

28. Storage Layer

Presents the features of Berkeley DB for use as a **data storage layer**. ... as **persistent** graphs of Java objects, or as opaque unstructured **data** in ... A write-ahead **transaction log** maintains undo/redo information for all actions ... is not considered **durable** until it has been fully written to the storage media, ...

www.oracle.com/technology/products/berkeley.../storage-layer.html - [Cached](#)

29. imqbrokerd(1M) - SunOS man pages

-backup fileName: Back up a Master Broker's configuration **change** record to **fileName**. ... Delete the instance configuration file, **log** files, **data store**, and other files and ... store: Clear all **persistent data** in the **data store**, including messages, **durable** subscriptions, and **transaction** information store. ...

docsun.cites.uiuc.edu/sun_docs/C/.../imqbrokerd.1m.html - [Cached](#) - [Similar](#)

30. [PDF] Buffer Management

File Format: PDF/Adobe Acrobat - [Quick View](#)

holding relevant parts of the **persistent** DB; mediator ... when the update **transaction** is long gone. ■ **Durable** storage. Assume B-tree with 10 times less **pages** than **data store** ... recently **read** into **buffer** experiences a burst of correlated Pre-Fetching and Pre-**Flushing** (cont.) • Pre-Fetching (cont.) ...

www.cs.iit.edu/~cs525/slides/chapter3.pdf - [Similar](#)

31. Berkeley DB Reference Guide: Transaction tuning

Berkeley DB Reference Guide: Berkeley DB Transactional **Data Store** Applications ... This flag allows **read** operations to potentially return **data** which has been ... threads of control must wait until those **log** records have been **flushed** to disk. ... In these cases, increasing the size of the **log buffer** can increase ...

www.cs.sunysb.edu/documentation/BerkeleyDB/ref/.../tune.html - [Cached](#)

32. [PDF] Dynamo: Amazon's Highly Available Key-value Store

File Format: PDF/Adobe Acrobat - [Quick View](#)

by G DeCandia - 2007 - Cited by 281 - Related articles

read from its **data store**, and that its **data** needs to be available across multiple **data** centers. ensure that the **page** rendering engine can maintain a clear bound the number of **transaction** aborts. Oceanstore resolves conflicts by Edition, MySQL, and an in-memory **buffer** with **persistent** backing store. ...

s3.amazonaws.com/.../sosp/amazon-dynamo-sosp2007.pdf - Similar

33. [PDF] How Flash Memory Changes the DBMS1 World

File Format: PDF/Adobe Acrobat - [Quick View](#)

by HO Norheim - Cited by 4 - Related articles

a smaller **buffer** and disk as permanent **storage** of large **data** volumes as well as ... to latency, either it is **page** **read** requests, or **transaction** **log** **page** **persistent** **storage**, at least log writes would have to be **flushed** to disk at ...

hansolav.net/blog/content/binary/HowFlashMemory.pdf - Similar

34. [PDF] Microsoft PowerPoint - Transactions-Recovery

File Format: PDF/Adobe Acrobat - [Quick View](#)

Force the **log** record for an update before the corresponding **data page** gets to disk. ...

Extension of **log** on mass **store**. • Periodically **flushed** to mass **store** ... Other **transaction** can **read** the value from the **buffer** (saves **read** access to ... record in **log** **buffer**, ensuring **transaction**'s updates are **durable** before (or ...

www.cse.iitb.ac.in/~cs317/Resources/.../Transactions-Recovery.pdf - Similar

35. Introduction

The cache is both **read-** and write-cache, as **pages** are **flushed** onto the disk not until a checkpoint. ... changes concerning the proper **data** is written into the "stable **store**". ... This works as follows: the log manager states that the **transaction log** has ... **Durable** subscriber definitions are stored in single files. ...

www.swiftmx.de/products/router/swiftlets/sys_store/.../index.html - Cached

36. tune.html

This means applications modifying large key/**data** items also write large **log** records, and, in the case of the default **transaction** commit, ... <dt>**log buffer** size<dd>Berkeley DB internally maintains a **buffer** of **log** writes. ... to write a dirty **page** in order to have space in which to **read** a new **page** from the backing ...

opensource.apple.com/source/BerkeleyDB/BerkeleyDB.../tune.html - Cached

37. [PPT] Transactions in a Flash

File Format: Microsoft Powerpoint - [View as HTML](#)

Slow: 6 µs versus 65 ns for **read**; Each bit can **change** from 1 to 0; but not back ...

RVM's **Transaction Log**. Circular disk-based log; Truncation forces updates to

actual ... Compiles 38 of its own files; Stores **data** in **persistent** heap ... Effect of background truncation on throughput; Allow **page-buffer** use on small ...
morgannprice.org/MASTERS96_flash.ppt

38. [kennygorman.com](http://www.kennygorman.com/)

When using any **persistent data store** that is not ACID compliant, something must ...
But not guaranteed depending on I/O capabilities of **durable** systems. ... and focus on just durability or focus on durability plus **read** scalability. ... everyone running PostgreSQL in a high **transaction**/high availability environment. ...
www.kennygorman.com/ - 21 hours ago - Cached - Similar

39. [PDF] [Flash memory](#)

File Format: PDF/Adobe Acrobat - [Quick View](#)
by G Graefe - 2007 - [Cited by 19](#) - [Related articles](#)
dirty **data** from the **buffer** pool to **persistent storage**. ... fast **transaction** commit.
However, limitations in write checkpoints that **flush** the recovery **log** and any dirty **data** in ... **page** sizes for both media requires a **change** in **buffer** man- **read** from flash memory into RAM, and then the **page** must ...
www.cs.cmu.edu/~damon2007/pdf/grafe07fiveminrule.pdf - [Similar](#)

40. [PDF] [Breaking the Disk Barrier with In-Memory DBMS Technology: Sybase ...](#)

File Format: PDF/Adobe Acrobat - [Quick View](#)
to stream **log data** to nonvolatile **storage**, such as disk or solid state memory. ...
flushed at this point. In others, the **buffer page** table is updated to indicate ... (Atomic, Consistent, Isolated, **Durable**) properties of a database **transaction**, is ... Users can move **read-only** database workloads to IMDB with no ...
www.sybase.com/files/.../IDC-Breaking-disk-barrier-with-IMDB-AR.pdf

41. [The Recovery Manager of the System R Database Manager](#)

by JIM GRAY - 1981 - [Cited by 370](#) - [Related articles](#)
transaction. • **READ SAVE** returns the **data** saved in the **log** by the application at a designated save point. ... and **durable**. This model of recovery is a subset of the ... All **persistent** System R **data** are stored in The RSS maintains two **buffer** pools: a pool of 4-kilobyte **data pages** and another pool ...
www.cc.gatech.edu/classes/AY2005/cs6210_spring/papers/recovery.pdf

42. [Understanding Information Store Essentials \(Part 2\) | MessagingTalk](#)

Nov 24, 2005 ... All **data** is **read** from and written to the disk in units of 4KB. ... **Durable** – Once a transaction has completed then it is permanent. ... **Transaction log** files help to achieve this, ensuring that a database can always be **Read** page 7 into a memory **buffer** (ESE will verify the checksum as described ...

www.messagingtalk.org/content/252.html - [Cached](#) - [Similar](#)

43. [PDF] [Notes on the Oracle/Database Problem](#)

File Format: PDF/Adobe Acrobat - [Quick View](#)

BigTable demonstrated that **persistent** record storage could be scaled to thousands ...

I haven't yet tested the facts first-hand on **data store** replication strategy that requires **log(N)** hops to **read/write** a key-value pair. incredible **transaction** rates.

The best I've seen on any of the other systems is ...

www.cattell.net/datastores/Datastores.pdf - [Similar](#)

44. [PDF] [CISC 499*: Transactions and Data Stream Processing](#)

File Format: PDF/Adobe Acrobat - [Quick View](#)

by N Conway - 2008 - [Related articles](#)

"**store** and query" model: **data** is stored permanently in the database, and **log**

flush: all remaining stream tuples are **flushed** to disk, ... a separate **transaction log**

describing each incremental **change**. stable **buffer** associated with each stream

input source. Management of **Data, pages 44–54**, 1994. ...

neilconway.org/docs/stream_txn.pdf

45. [Transactions in a Flash](#)

Big **log** bandwidth savings! – Writes 548 vs. 748 bytes • Flash requires compact ...

Effect of background truncation on throughput • Allow **page-buffer** use on small ...

Forcing **persistent** writes to Flash – **Flushing** stale **data** upon erase 52 ... 162 views;

A-DATA 32 GB SDHC Class 6 Flash Memory Card 32GSDHC6 (Blue) 173 ...

www.slideshare.net/Flashdomain/transactions-in-a-flash - [Cached](#)

46. [Transaction Logging Concepts](#)

Jul 20, 1997 ... The same **log** record that was used to make the initial **change** can also

be ... This means that when the database manager writes a **log buffer** to disk ... Since

transactions must be **durable**, any committed **data** that were Any previously

written **data store** din the extents is not removed or zeroed. ...

www.fast4gl.com/downloads/monographs/logging/logging.html

47. [Proceedings of the Workshop on Embedded Systems, March 29-31, 1999 ...](#)

by MI Seltzer - Cited by 28 - [Related articles](#)

Tuning the design requires selecting a location for the **log** and **data** files This

means that **transaction** systems are designed for permanent **storage** (most ... **data**

must be copied from the **data manager's buffer** cache (or **data pages**) into and

selects the amount of **log data** that can be **read** in that interval and ...

www.usenix.org/events/es99/full_papers/seltzer/seltzer_html/ - [Cached](#)

48. [PDF] (Lightweight) Recoverable Virtual Memory

File Format: PDF/Adobe Acrobat - [Quick View](#)

Protect updates to **persistent data** structures. Use transactions Inter-**transaction**.

For no-**flush** transactions, discard old **log** records ...

www.cs.nyu.edu/rgrimm/teaching/sp08-os/rvm.pdf - [Similar](#)

49. In Recovery... | Paul S. Randal on SQL Server

30-09) backups **read data** through the **buffer** pool Now I'll commit the nested transaction, run a checkpoint (which will clear all possible **transaction log** in the In SQL Server 2005 (and 2008) you can **change** the behavior of lock subsystem (e.g. a **persistent stale read** issue) then the corruption will ...

www.sqlskills.com/blogs/paul/ - [Cached](#) - [Similar](#)

50. Amazon's Dynamo - All Things Distributed

Oct 2, 2007 ... This paper describes Dynamo, a highly available **data storage** technology that ... **page** rendering engine can maintain a clear bound on **page** delivery each service MySQL, and an in-memory **buffer** with **persistent** backing store. failed database accesses due to lock-contention and **transaction** ...

www.allthingsdistributed.com/2007/.../amazons_dynamo.html - [Cached](#) - [Similar](#)

51. Data Store Attributes

1 (Write **data** to **transaction log** files using buffered writes. 1 - Connects to **data store** in **read** committed mode (default). Windows ODBC **Data Source** ...
database.in2p3.fr/doc/oracle/Oracle_Database.../attribute.htm - [Cached](#)

52. APPARATUS AND METHOD FOR LOG BASED REPLICATION OF DISTRIBUTED ...

For other databases, the **transaction log** is circular and **pages** are archived and The transaction generates **change data** and transaction control records. ... acts as a proxy for the CP to **read** the **persistent**, commit-ordered queues generated ... the **buffer** is **flushed** and the information is sent back to the CP 118. ...

www.faqs.org/patents/app/20090217274 - [Cached](#)

53. FUSE Message Broker v5.3 Release Notes - Product Information ...

MB-447: File index.html in the /docs folder points to the incubator **page** ... MB-436: **Change** the InactivityMonitor to clear its flag as soon as a few bytes are ... id ID:.... could not be recovered from the **data store** - already dispatched ... AMQ-2021: **durable** subscriber gets stuck while using **persistent** delivery ...
fusesource.com/.../FUSE+Message+Broker+v5.3+Release+Notes - [Cached](#) - [Similar](#)

54. InformIT: Sams Teach Yourself Microsoft SQL Server 7 in 21 Days ...

Durable— A transaction is said to be **durable** if the work is guaranteed to remain ... Conversely, you cannot **read** another transaction's **data** if it's in the The new row is recorded in the **transaction log**, and then the **data page** for ... SQL Server uses to "flush" (or copy) the **data pages** from memory to disk. ... www.informit.com/library/content.aspx?b=STY_Sql... - Cached - Similar

55. [\[PDF\]](#) [View or Download](#) - [CiteSeerX](#)

File Format: PDF/Adobe Acrobat - [Quick View](#)
by K Ramamirtham - [Cited by 51](#) - [Related articles](#)
persistent storage for space reasons because of the **Steal buffer** For example, let **transaction t1** **read data** item x and **transaction t2** **read data** item y. ... citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.55.7005&rep...

56. [In-Memory Database option for Sybase Adaptive Server Enterprise](#) ...

Feb 2, 2010 ... This capability enables you to treat memory-resident **data** the same way you ... Plus, it's quick, easy, and integrated. **Read** on to learn more. ... the **commits** (i.e. the physical writes to the **transaction log**). ... In other words, "**durable**" has been sacrificed for performance. ... Go to [page: 1](#) [2](#) [Next](#) ... www.databasejournal.com/.../In-Memory-Database-option-for-Sybase-Adaptive-Server-Enterprise.htm - Cached - Similar

57. [Exchange Server 2007 "SP1 ESE Changes – Part 1"](#)

Dec 1, 2007 ... **ESE Cache** - An area of memory reserved to the **Information Store** process (**Store.exe**) that ... Within the database, **data** is stored in 8 KB database **pages**. ... As the database **pages** are changed, the **log buffer** is notified to commit the **change**, and the transaction is recorded in a **transaction log file** ... www.ditii.com/2007/.../exchange-server-2007-sp1-es-changes-part-1/ - Cached

58. [UNIX man pages : imqbrokerd \(1M\)](#)

Dproperty = value SunOS 5.9 Last **change**: 23 Sep 2002 1 System Administration ... Delete the instance configuration file, **log files**, **data store**, and other files ... store Clear all **persistent data** in the **data store**, including messages, **durable** subscriptions, and **transaction** information store. messages Clear all ... www.s-gms.ms.edus.si/cgi-bin/man-cgi?imqbrokerd+1M - Cached - Similar

59. [O'Reilly Windows DevCenter Blog](#)

Mar 16, 2006 ... So you might be thinking that if you decrease the time to **flush** the mapped ... of WebSphere MQ is its implementation of **persistent** messaging. Similar to DB2, WebSphere MQ uses a **transaction log** ... If you need to **store** lots of **data**, you will need to be concerned ... Tools of **Change** for Publishing ...

www.oreillynet.com/windows/blog/2006/03/ - [Cached](#) - [Similar](#)

60. [PPT] Distributed Database Systems

File Format: Microsoft Powerpoint - [View as HTML](#)

Permanent (reflecting an irreversible **change** in the behavior of the system) ...

Asynchronous – the **log** is moved to stable **storage** either periodically or when ...

Flush – BM flushes **buffer pages** updated by a **transaction** at the end of that ... LRM tries to **read** the **data** item from the **buffer**. If the **data** is not in the ...

[dbgroup.cs.tsinghua.edu.cn/.../12.Distributed_DBMS_Reliability\(1_of_3\).ppt](http://dbgroup.cs.tsinghua.edu.cn/.../12.Distributed_DBMS_Reliability(1_of_3).ppt)

61. Commercial Windows Azure is now live, along with cloud-based ...

Feb 2, 2010 ... "Caching the **data** on the local drive can reduce the **read** traffic to the **page** blob, which will lower the **transaction cost**," wrote Brad Calder this morning. ...

Note, even when the cache is enabled, all non-buffered and **flushed** writes are committed transactions to the **Page Blob in durable storage**." ...

www.betanews.com/article/...is...storage/1265131283 - [Cached](#) - [Similar](#)

62. Challenges in Embedded Database System Administration

Tuning a design requires selecting a location for the **log** and **data** files, This means that **transaction** systems are designed for permanent **storage** (most ... it must be copied from the **data** manager's **buffer** cache (or **data page**) into the and selects the amount of **log data** that can be **read** in that interval and ...

www.eecs.harvard.edu/~margo/papers/.../paper.html - [Cached](#) - [Similar](#)

63. [PDF] Review: The ACID properties

File Format: PDF/Adobe Acrobat - [Quick View](#)

System may crash, but the disk is **durable** ... i.e. **data** is overwritten on (or deleted from) the actual **page** ... Buffer manager decides when to **read** or write specific **pages** ... **transaction** is not committed until all of its **log** records ... limited by oldest unwritten **change** to a **dirty page**. ● **Store** LSN of most ...

www.voneicken.com/courses/ucsb-cs290f-fa06/.../Lecture13.pdf - [Similar](#)

64. [PDF] New Abstractions for Fast Non-Volatile **Storage**

File Format: PDF/Adobe Acrobat - [Quick View](#)

Begin **transaction**. 2. Perform operations. – Record the state of any **data** that is **read** or written in a **log** to be played back later if the **transaction** fails ...

www.flashmemorysummit.com/.../20090813_ThursPlenary_Coburn.pdf

65. Compact, flash-based SQL RDBMS for high-performance **data** ...

It isolates the application writers from the details of **data storage**: they do not ... at the

end of each successful **transaction** that altered **persistent data**, ... When the system starts up, the snapshot is **read**, and then all appended ... and **durable**: the database file is treated as a series of **pages**, with a **page map** ...
www.enea.com/Templates/Product_27040.aspx - Cached

66. Transaction Processing - Elsevier

5.5.4 Using **Persistent** Savepoints 5.6 Terminological Wrap-Up ... 9.4.5 Allocate and **Flush Log** Daemons 9.4.6 Careful Writes: Serial of Ping- ... 11.2.2 **Transaction Manager Data Structures** ... 13.2 The File System as a Basis for Transactional **Durable Storage** 13.2.1 ... 13.4.2 Implementation Issues of a **Buffer Manager** ...
www.elsevier.com/wps/product/authors/677777 - Cached

67. MySQL AB :: MySQL 5.0 Reference Manual :: 15.4.4.5 Defining Data Nodes

Normal **read** and write operations use a similar **buffer**, whose usage is even more short-lived. ... If you wish to **change** this value for a running cluster, However, **transaction log** records are not **flushed** to disk as part of the commit. ... This value includes the writing of UNDO log records for **data pages**. ...
mysql2.mirrors-r-us.net/.../mysql-cluster-ndbd-definition.html - Cached - Similar

68. Main-Memory Databases for Real-Time Telecom Applications

by FF Prabhakar - Related articles

The system **data** is also stored in database files keeping the **storage** ... fact that in a main-memory database **pages** are not **flushed** to disk during ... By keeping the **persistent log** as a collection of mostly redo entries, Main-memory databases deliver real-time performance by **changing** the assumptions around ...
www.lehigh.edu/~ffp206/dbstudy.pdf

69. eXtremeDB in-memory database | Logic Technology

Typical **read** and write accesses are at the level of a few microseconds, or less. But replication entails latency from the moment a primary **data store** is updated, ... where the image of the database is saved to **persistent** storage, ... many writes per transaction (**data pages**, **index pages**, **transaction log**, ...
www.logic.nl/Products/Category/Embedded.../Databases.aspx - Cached

70. [PDF] Oracle TimesTen In-Memory Database Recommended Programming Practices

File Format: PDF/Adobe Acrobat - Quick View

The second option is to allow the TimesTen **data store** to **flush** its in- ... that it cannot lose more than the in-memory log **buffer's** size worth of transactions). mode and intend to reuse a **durable** subscription in the future, you XLA is made **persistent** by keeping a bookmark in the **transaction log** ...
www.jimdowling.info/tmp/research/oracle/times_ten_good_practices.pdf

71. Good Practices

This causes every commit in that connection to **flush** the **transaction log** to ... it cannot lose more than the in-memory log **buffer's** size worth of transactions). between two accounts, require the **data store** to be in a **durable** state Checkpoints reduce the amount of log **data** needed for **data store** recovery, ...
www.scribd.com/doc/275942/Good-Practices - Cached - Similar

72. [PDF] 1 Redo and Undo Optimizations in Oracle 10g Objectives What is ...

File Format: PDF/Adobe Acrobat - Quick View
Adjust the space **data** for the **log buffer** and release the allocation latch ... Pool to **store** UBA (undo byte address) and **change** vector pairs ...
www.teamyc.com/RMOUG_2008_Conference/PDF/Haisley.pdf - Similar

73. MySQL vs PostgreSQL - WikiVS

This is of considerable value to many **read**-mostly workloads. ... The InnoDB **storage** engine stores the **data** with the primary key, so primary key ... The InnoDB engine has an insert **buffer** that caches updates to secondary index Once an update has been committed to memory on two nodes it is considered **durable**. ...
www.wikivs.com/wiki/MySQL_vs_PostgreSQL - Cached - Similar

74. Coordinator log transaction execution protocol

by JW Stamos - 1993 - Cited by 58 - Related articles
commit log record, an end-**transaction log** record, a **data** manipulation log record cached information may let it **flush** a dirty **buffer page** without contacting any recovery is to **read** the redo-start-LSN from **persistent storage**. ... uses a stable log to ensure each committed transaction is **durable** in that its ...
www.springerlink.com/index/L8U51612277W2012.pdf - Similar

75. Slashdot | Object Prevalence: Get Rid of Your Database?

Mar 3, 2003 ... When doing a write, write to the DB and update/**flush** your cache as necessary. ... Almost all **pages** (**data** fetch/**change** + HTML generation) complete in about 0.001s. Things I want in a **persistent datastore**: don't affect your **data** in mid-**transaction**). Passes **Durable**, I suppose. I've **read** a few ...
developers.slashdot.org/article.pl?sid=03/03/1220222 - Cached

76. Computer Science 304 Introduction to Database Systems flashcards ...

Durability, If a transactions commits then that effect is **persistent** ... Forces the writing of **log** records before the **data page** is written. ... that commits a **transaction** only after all the transactions that modify **data read** by that ... Write-ahead logging write any db changes to the **log** in stable **storage** before ...

quizlet.com/.../computer-science-304-introduction-to-database-systems-flash-cards/
- Cached

77. [PPT] Ask The Expert

File Format: Microsoft Powerpoint - [View as HTML](#)

In-Memory. Logging. LOG. **BUFFER** Tx Tx **Durable** ...
TimesTen **Data Store** Recovery. TimesTen **Data Store**. 2. **Transaction Log**.
Rollforward ... Save **data** from TimesTen to Oracle. Using a "FLUSH CACHE GROUP" command in TimesTen SQL ... Users now see personalized **pages** suited to their needs ...
www2.randallrhea.com/tt.ppt

78. [PDF] Unbundling **Transaction Services** in the Cloud

File Format: PDF/Adobe Acrobat - [Quick View](#)

by D Lomet - Cited by 7 - [Related articles](#)

A **log manager** for recovery. 3. A **buffer pool** for staging database I/Os. just provide **persistent store**, with unlimited scalability and de- the **page** is **flushed** to disk, the abLSN must be made stable The **data read** will be **transaction** consistent because no TC can **change the data**....

www-db.cs.wisc.edu/cidr/cidr2009/Paper_53.pdf - [Similar](#)

79. (WO/2009/108409) **LOG BASED REPLICATION OF DISTRIBUTED TRANSACTIONS** ...

The transaction generates **change data** and transaction control records. ... the changes are shipped to a commit-ordered output queue (**persistent storage**). ... the **buffer** is **flushed** and the information is sent back to the CP 118. 2.1 **Read** the associated **transaction log** and capture a complete local transaction T.
www.wipo.int/pctdb/ja/wo.jsp?WO=2009108409&IA... - Cached

80. **KEEPING CARD DATA SECURE AT LOW COST - Security and Detection** ...

by AW Vaidya - 1995 - Cited by 3 - [Related articles](#)

data read only or will it be updated the capacity of **data storage** required ... Security against counterfeit and **data changing** a. **Durable** and long life card ...
ieeexplore.ieee.org/iel3/3531/10615/00491723.pdf?arnumber=491723

81. Should I Use a Directory, a Database, or Both?

Nov 1, 2001 ... **Durable**. Upon commitment of the **transaction**, its changes are guaranteed. Until the **transaction** commits, none of its actions are **durable** or **persistent**. The LDAP specification does not define the underlying **data store** for A if both are **read** immediately after the **change** is made to replica A.
support.novell.com/techcenter/articles/ana20011101.html - Cached - [Similar](#)

82. [PDF] DataBlitz Main Memory DataBase System

File Format: PDF/Adobe Acrobat - [Quick View](#)

Each **transaction** writes the following to the **log tail**: ... **Flush** dirty (updated) **pages** and note **transaction** information ... Support atomic transactions without requiring them to be **durable** ... Fine-grained locking (**read/write/intention**) ... memory, **persistent** memory). • Control **data** stored separately from **data** ...
www.dependability.org/wg10.4/timedepend/08-Rasto.pdf - [Similar](#)

83. [PDF] Berkeley DB

File Format: PDF/Adobe Acrobat - [Quick View](#)

by MA Olson - 1999 - [Cited by 187](#) - [Related articles](#)

Applications that do not require **persistent storage** can create databases that exist only in ... hood that any **read** operation will need to visit the disk to the **data** disk as **pages** move through the **buffer** cache. ... locks on demand over the course of the **transaction**, then **flush** the **log**, then release all locks. ...

www.n3labs.com/pdf/berkeleydb-overview.pdf

84. SPECjAppServer2004 Result: WebSphere 6.1 Application Server on IBM ...

Only the **data** inside the bean was cached. Durability Requirement Info: ... on the external **storage**. The log device contains two 5+P arrays. ... When there is not enough space in the memory **buffer** to **read** in or write additional **data pages**, ... Using the **transaction log**, transactions that started but did not complete ...
www.spec.org/.../results/.../jAppServer2004-20061218-00048.html - [Cached](#)

85. 5分钟法则(The Five minute Rule) 百度文库

May 12, 2010 ... If flash memory is part of the **persistent storage**, **page** movement between Not surprisingly, the system-wide checkpoints that **flush** the recovery **log** and optimal The current contents will be described in **persistent data** ... **pages** are **flushed** from more queue: www.acmqueue.com the **buffer** pool ...
wenku.baidu.com/view/f804a6c24028915f804dc23b.html - 4 hours ago

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86. MySQL Tutorial: Managing Transactions in MySQL

Dec 16, 2008 ... **Durable**: Once any changes that result from a **transaction** are committed to A phantom **read** occurs when a user sees **data** in **transaction B** that ... In session two, **change** the isolation level and do a Select from studio. To continue to learn MySQL go to the top of this **page** and click on the ...
www.learn-mysql-tutorial.com/Transactions.cfm - [Cached](#) - [Similar](#)

87. memcached: More Cache = Less Cash! | Rackspace Cloud Computing ...

Jul 29, 2009 ... When you **store** your **data** into memcached, it's stored in memory. When it does **change**, your MySQL query cache is emptied for that table. First it writes to a **transaction log**, then to the actual table. volatile memory and a **durable** transactional **store** using database and **persistent storage**. www.rackspacecloud.com/blog/.../memcached-more-cache-less-cash/
- Cached - Similar

88. Windows Azure Drive | Manish Kungwani's blog

Mar 25, 2010 ... Caching the **data** on the local drive can reduce the **read** traffic to the **page** blob, which will lower the **transaction** cost. all non-buffered and **flushed** writes are committed transactions to the **Page Blob** in **durable storage**. Write – All non-buffered/**flushed** NTFS writes are sent to the OS driver, ...
manishkungwani.com/blog/?tag=windows-azure-drive - Cached

89. File System Extensibility and Reliability Using an in-Kernel Database

Mar 9, 2005 ... One natural application of efficient and reliable **data storage** is a file system. **changing** the calling conventions as needed (e.g., **read** becomes a KBDBFS uses the **buffer** cache to store **data** before writing it to the block then the operation is either safely in the **transaction log**, ...
www.am-utils.org/docs/kbdbfs-mstheresis/index.html - Cached

90. [PDF] Freelance Graphics - RestartRecovery.PRZ

File Format: PDF/Adobe Acrobat - Quick View
All this application activity causes WMQ to create **durable data** to ensure ... The next **transaction-related log** record is an End Phase1 Commit record. The **log** is **read** forward from this point. Any **log** record for a **change** to a **page** with a redo **Page Buffer** Total Unused Persist Nonpersist Restart Expansion ...
guide.webspheremq.fr/lmd_faqlmq.php?nom_doc=GSF_MQ... - Similar

91. ODBMS Industry Watch

This is a presentation of a NoSQL **data store** given at the NoSQL workshop in Boston. than the dozens of index, join and **read** operations that SQL would need. providing transparent access and **transaction** processing of **persistent**, ... structures for **durable** storage and instantiating the same on retrieval, ...
www.odbms.org/blog/ - Cached - Similar

92. [ODF] solidDB for MySQL

File Format: OpenDocument - View as HTML
Transactional, **persistent** in-memory and disk-based engines in the same DBMS Every transaction sets a **read** level. **Data** with a higher **read** level, that is, **Transaction Log** (Redo Log). Primary **storage** of committed transactions ... Creating

a checkpoint means that all "dirty" database **pages** are flushed from ...
cheyer.biz/files/talks/2006-11-15-solid-linuxworld-cologne.odp - Similar

93. ChangeLog - memcachedb - Project Hosting on Google Code

Project hosting will be **READ-ONLY** Wednesday at 7:30am PDT due to brief ... A distributed key-value storage system designed for **persistent** **data** model any more, the structural **data storage** will be issued by add option "-L" to allow to set **transaction log buffer** ... Show details Hide details. **Change log** ...
code.google.com/p/memcachedb/source/browse/trunk/ChangeLog - Cached

94. Shadow paging - Patent 7389308

by SJ Bailey - 2008 - Related articles

Jun 17, 2008 ... A computer readable **storage** medium encoded with a computer A **durable transaction** is one in which the **change** in the state of the database is permanent. The user **data pages** 18 are **pages** that may contain database **data**, **flushing** referred to transmitting **data** to the **persistent** memory 80
www.freepatentsonline.com/7389308.html - Cached

95. [PDF] The Rio File Cache: Surviving Operating System Crashes

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by PM Chen - Cited by 167 - Related articles

The only time a file cache **page** is vulnerable to an unauthorized **store** is ... Kernels that use memory-mapping to cache files must be modified to map the file **read-only**. **buffer cache data** is now permanent. Third, memory's high throughput makes it **Durable** Memory RS/6000 System Design. In Proceedings of the ...
cseweb.ucsd.edu/.../chen,ng,rajamani,aycock.the_rio_file_cache.surviving_operating_system_crashes.pdf

96. [PDF] Shore-MT: A Scalable **Storage** Manager for the Multicore Era

File Format: PDF/Adobe Acrobat - Quick View

by R Johnson - 2009 - Cited by 4 - Related articles

ple **storage** managers must participate in a **transaction**. Given the need for high performance inside a single ... ground) so that changes to in-memory **data** become **durable**. Observation: **Page** allocations do not **change** often. Also, The blocking on a full **buffer** if necessary, then notify the **log flush** ...
infoscience.epfl.ch/record/139059/files/p24-johnson.pdf

97. [PDF] To BLOB or Not To BLOB: Large Object **Storage** in a Database or a ...

File Format: PDF/Adobe Acrobat - Quick View

by R Sears - 2007 - Cited by 11 - Related articles

change is aligned on database **pages**. (How likely that ... **flushed** to disk. Finally, the

new file is renamed to the ... **transaction**. Complete transactions are applied to the
size of the write requests, we use a 64K write **buffer** ... evaluated the **read**
performance of the two systems on a clean **data store**
arxiv.org/pdf/cs.DB/0701168 - [Similar](#)

98. Hippocratic Databases: Extending Current **Transaction** Processing ...

by M Kirchberg - 1899 - [Related articles](#)

entries from the **transaction log** while preserving fundamental **data**, crash and media recovery properties. to **read** out the value from the Master Record) and a ... the log tail and **flush** all modified log **pages** as ... the entire) database on **persistent storage** has been lost / damaged. In order to do so, ...

doi.ieeecomputersociety.org/10.1109/HICSS.2010.220

99. [PDF] **Data Storage** Considered Modular

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by MD Mammarella - 2010 - [Related articles](#)

abstracts the file-system-specific mechanisms that keep **persistent data** both consistent request that the **storage** system **flush** the **change** corresponding ...
www.cs.ucla.edu/~mikem/dissertation.pdf

100. [PDF] Anatomy of a Database System - Bowdoin College

File Format: PDF/Adobe Acrobat - [Quick View](#)

by JM Hellerstein - [Cited by 8](#) - [Related articles](#)

To **flush** a **buffer pool page** to disk, a thread generates an I/O Processes, there will be a process per **log** disk, to **flush** the **log** tail, and to **read** the the choice of the **persistent storage** interface to use. **READ UNCOMMITTED**: A **transaction** may **read** any version of **data**, committed ...

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eNVy: a non-volatile, main memory storage system

[postech.ac.kr \[PDF\]](#)

M Wu, W Zwaenepoel - ... of the sixth international conference on ..., 1994 - portal.acm.org
... nology matures, Flash has the potential to become very durable. A Flash chip normally operates in an EPROM-like read only mode. All other functions are initiated by ... ally involves a series of program and verify steps until the desired data is actually changed on the chip. ...

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MA Olson, K Bostic, M Seltzer - ... of the FREENIX Track: 1999 USENIX ..., 1999 - usenix.org
... Read-only applications can use Berkeley DB's memory-mapped file service to improve performance on most architectures. Configurable page size. ... They must be durable. ... When it finishes, the database will contain every change made by every transaction that ever committed. ...

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K Ramamritham, R Sivasankaran, JA Stankovic, ... - ACM Sigmod ..., 1996 - portal.acm.org
... purposes, some of the sensor readings and actuator control settings may be archived, that is, made durable. ... to NV-RAM if the validity is long enough for a NV-RAM write and read. ... Temperatures typical change slowly, but the values are used for many other critical calculations. ...

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T Fiebig, S Helmer, CC Kanne, G Moerkotte, J ... - Web, Web-Services, ..., 2002 - Springer
... Each record is identified by a slot number which does not change even if the ... processing depends on primitives based on the proven foundation of atomic, durable and serializable ... The log manager provides the routines to write and read log records, synchronizing access of ...

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[PDF] The recovery manager of a data management system

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JN Gray, P McJones, M Blasgen, RA Lorie, TG ... - IBM Research Report ..., 1979 - Citeseer
... is complicated to program and has the problem that the flight status may change during the ... application programs using the RDS can construct groups of RSS actions which are atomic and durable. ... To see why this is necessary, suppose a read lock on a record were released by ...

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Method and apparatus for insuring database data integrity without data recovery logging

RW Lyle, JZ Teng, JA Yothers - US Patent 6,651,073, 2003 - Google Patents

... In order to make such a database system **persistent** or "durable", the **data** pages must be ... Unlike non-distributed databases where a single **change** is, or is not, made locally, all ... single thread process on the entire table and, consequently, it prevents concurrent **read/write** access ...

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Anatomy of a native XML base management system

T Fiebig, S Helmer, CC Kanne, G Moerkotte, J ... - The VLDB Journal, 2002 - Springer

... Special calls exist to avoid I/O for **reading** or writing newly allocated or deallocated pages ... a regular slotted **page** implementation, which maintains a collection of variable- length records on a **data page**. Each record is identified by a slot number which does not **change** even if the ...

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[BOOK] Transaction processing: concepts and techniques

J Gray, A Reuter - 1993 - books.google.com

... LAN RPC random **read** memory record 1,000 - " local RFC sequential write record mcmofl process dispatch sequential **read** record 100 ... of the TP Monitor 312 6.3.1 The Central **Data Structures** of the TPOS 313 **Data Structures** Owned ... ii Contents 6.4.2 **Durable Request Queues** ...

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[HTML] Journaling versus soft updates: Asynchronous meta-data protection in file systems

MI Seltzer, GR Ganger, MK McKusick, KA ... - USENIX Annual ..., 2000 - usenix.org

... that focus on file systems and their performance, we do not see any **change** in this ... of the normal main memory is treated as a protected region, maintained with **read-only** protection ... it does not guarantee (as FFS does) that all **meta-data** operations are **durable** upon completion of ...

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[CITATION] Implementing atomicity in two systems: techniques, tradeoffs, and experience

LF Cabrera, JA McPherson, PM Schwarz, JC Wyllie - IEEE Transactions on Software ..., 1993

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Method and apparatus for efficiently recovering from a failure in a database that includes unlogged objects

RW Lyle, JZ Teng, JA Yothers - US Patent 6,567,928, 2003 - Google Patents

... In order to make such a database system **persistent** or "durable", the **data** pages must ... Unlike non-distributed databases where a single **change** is, or is not, made locally, all ... US 6,567,928 BI table and, consequently, it prevents concurrent **read/write** access by other applications ...

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[PS] Sleepycat Software, Inc.

MA Olson, K Bostic, M Seltzer - usenix.org

... **Read-only** applications can use Berkeley DB's memory-mapped file service to improve performance on most architectures. 3.6. ... They must be **durable**. ... When it finishes, the database

will contain every **change** made by every **transaction** that ever committed. ...

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Checkpoint methods and systems utilizing non-disk persistent memory

GS Smith, SA Fineberg, P Mehra, R ... - US Patent App. 10/ ..., 2004 - Google Patents

... In this manner **read** or write commands are carried on RDMA-enabled SAN 306 to the CPMU's network interface (NI) 308. ... In a write operation initiated by processor node 302, for example, once **data** have been successfully stored in the CPMU, they are **durable** and will ...

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Shore-MT: a scalable storage manager for the multicore era

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R Johnson, I Pandis, N Hardavellas, A ... - Proceedings of the ..., 2009 - portal.acm.org

... to disk (preferably in the background) so that changes to in-memory **data** become **durable**. ... and high-level index pages are accessed so frequently that even compatible **read** operations can ... to a **buffer pool**; however, as the number of active locks can change drastically over time ...

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The design and implementation of a multilevel secure log manager

VR Pesati, TE Keefe, S Pal - sp, 1997 - computer.org

... However, it is possible with a minor **change** in the way paths are selected. ... It returns the **durable** LLSN which is on WADS for that level. The log-open-cursor interface provides a way of opening a cursor for reading log records. ...

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Data processing node

M Lu, R Humberstad, O Sandsta, D ... - US Patent App. 11/ ..., 2006 - Google Patents

... **Page 17**. ... a high availability database include an ability to be implemented using standard hardware and software, and a standard **data** format compat ... Thus conduct of **transaction** operations can continue unhindered by any delay in writing the records to the non-volatile **storage**. ...

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[PDF] File system extensibility and reliability using an in-kernel database

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A Kashyap - Master's Thesis, State University of New York, Stony ..., 2004 - Citeseer

... A simple **change** such as adding an extra inode attribute for inode creation time would be difficult ...

The database files can exist on any file system that provides standard **read-write** capabilities. ...

Using the O SYNC option with open(2) provides **durable** writes, while also having the ...

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[PDF] Main Memory Databases vs. Disk-Resident Databases

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A Aleahmad, H Amiri, M Rahgozar - Citeseer

... This would seriously **change** the architecture for a DBMS. ... we need to have **durable** transactions, each **transaction** should be committed to disk to make it **durable**. ... PERST is an application-oriented database, and is optimized for applications with dominated **read** access pattern. ...

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M Mammarella, S Hovsepian, E Kohler - Proceedings of the ACM ... , 2009 - portal.acm.org
... Using fsync without the timestamp **change** is not ... durable within about 5 seconds (the default duration of ext3 transactions), as each ext3 **transaction** will make all completed Anvil transactions **durable**. ... Managed Yes Combines **read-only** and journal dTables into a **read/write store** ...

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Platypus: Design and implementation of a flexible high performance object store

[150.203.164.35 \[PDF\]](#)

Z He, S Blackburn, L Kirby, J Zigman - Persistent Object Systems: Design, ... - Springer
... recovery, faulting of **data** into memory and the writing of both committed (**durable**) and uncommitted ...
is to include them in **store pages**—a **store page** can then be **read** upon recovery ... changes must,
by definition, leave the **page** in different states, a subsequent **change** could return ...

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[PDF] A Snapshot Utility for a Distributed Object-Oriented Database System

[mit.edu \[PDF\]](#)

CH Moh - 2002 - pmg.lcs.mit.edu
... The Anti-MOB saves the state of **data** objects before they are modified so that the OR can later undo the modifications from a page on the disk to ... The MOB improves performance of the system by allowing installation **read** to be performed in a background flusher thread. ...

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[psu.edu \[PDF\]](#)

G Graefe - Proc. of the 1st Int'l Conference on Innovative Data ... , 2003 - Citeseer
... traditional implementation of partitioning, each creation or removal of a partition is a **change** of the ... contain 1,000 records), and merge those at a cost of 9,000 records **read**, merged, and ... The initial **data** transfer (prior to committing the initial index) may omit **data log**-ging, similar ...

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T Processing - Citeseer
... should understand the concepts from the Getting Started with Berkeley DB guide before **reading** this book ... See Non-Durable Transactions (page 19) for more information ... your **transaction** reads **data** "dirtied" by another **transaction**, but which subsequently might **change** before that ...

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[PDF] Transaction Support for Log-Based Middleware Server Recovery Rui Wang* 1, Betty Salzberg 2, David Lomet* 3

[microsoft.com \[PDF\]](#)

1Microsoft, 3Microsoft Research

WA Redmond - 2008 - research.microsoft.com

... **Transaction** systems guarantee that the transactional modifications to their resources are **durable**. ... If it finishes and aborts, we similarly only need its effect, which does not **change** any variable or ... When a method tries to **read** a shared variable, orphan detection for this variable is ...

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G Shegalov - 2006 - Citeseer

... engines, and databases distributed over multiple layers; they pose strong requirements for service and consistent **data** availability from both legal and business standpoints. ... survive subsequent system failures. Page 18. 2 1 Introduction ... The **transaction** (started at ...

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MD Mammarella - 2010 - cs.ucla.edu

... requirements), and are themselves divided into parts that access **read-only** **data** stores and ... before committing the changes, so that the changes become **durable** atomically even if the ... so a change that affects n blocks requires at least n patches to represent. Each patch is ...

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[PDF] [CEDA Log Structured Store](#)

[cedanet.com.au \[PDF\]](#)

D Barrett-Lennard, WA Perth - 2010 - cedanet.com.au

... Serial elements never become heavily fragmented like files in a file system be- cause serial elements are rewritten when they **change size**. ... **durable**. ... Therefore the LSS can provide very competitive **read** performance. 11 Supported Platforms ...

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[The impacts of write-through procedures and checkpointing on real-time concurrency control](#)

[psu.edu \[PDF\]](#)

TW Kuo, YH Hou, KY Lam - The Computer Journal, 2003 - Br Computer Soc

... Logical logging can **change** a long physical log into a record of only a few words [12]. ... Before a **transaction** reads (or writes) a **data** object, it must first **read-lock** (or **write-lock**) the ... the former **data** object is not later than the corresponding unlocking operation of the latter **data** object ...

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[PDF] [CISC 499*: Transactions and Data Stream Processing](#)

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N Conway - 2008 - Citeseer

... Similarly, if the system guarantees that all committed **transaction** are **durable**, the application developer typically does not ... Streams are append-only, and queries on streams are **read-only**. ... In this section, we consider how a continuous query's snapshot should **change** over time. ...

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Z He, SM Blackburn, L Kirby, J Zigman - Citeseer

... crash recovery, faulting of **data** into memory and the writing of both committed (**durable**) and uncommitted ... They are necessary for the calculation of **change** deltas ($\Delta O \frac{1}{4} O$), and they allow updates ... to include them in **store** pages—a **store** page can then be **read** upon recovery ...

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J Mildenberger - Citeseer

... the basic partition interface, which consists of a small set of block-level read/write functions. ... a regular slotted page implementation, which maintains a collection of variable-length records on a data page. Each record is identified by a slot number which does not change even if ...

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Method and apparatus for incremental undo

B Nainani, GC Ngai, W Huang, JD Klein, RJ ... - US Patent ..., 2001 - Google Patents

... Uncommitted transactions should not be durable. ... chip or cartridge, a carrier wave as described hereinafter, or any other medium from which a computer can read. ... then undo information from the rollback entry is retrieved from the undo record and a change is generated for the ...

Cited by 9 - [Related articles](#) - All 2 versions

Transactional file system

S Verma, TJ Miller, RG Atkinson - US Patent 7,613,698, 2009 - Google Patents

... "Implementing Distributed Read-Only Transaction ... Disk Drive Interface 32 v1 Optical Drive Interface

33 iszpx 1Z Serial Port Interface 34 n,,n PROGRAM DATA 39 OTHER ... 3, 2009 Sheet 6 of 22 r

94 Version Commit LSN SOP Pointer State Flags Version Length Change Table Ptr ...

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[PDF] [SimpleDBM Developers's Guide](#)

[googlecode.com](#) [PDF]

D Majumdar - [simpedbmc.googlecode.com](#)

... Eclipse is now setup to automatically rebuild SimpleDBM whenever you change any code.

1.2.6 Maven commands ... Latch Provides read/write latches that can be used to manage concurrency. ... The Write Ahead Log also uses storage containers to store its data. ...

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[PDF] [Write optimized object-oriented database systems](#)

[psu.edu](#) [PDF]

K Nørvåg, K Bratbergsgen - Conf. of the Chilean Computer Science ..., 1997 - Citeseer

... When a transaction is committed, the data should really be durable. ... Traditional clustering works well as long as the access pattern is static, but if this happens to change, or access pattern is ... This block holds static volume information, and is only read when the system is started. ...

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... This allows the location of data in the page file to change, even if outstanding transactions may have to roll back changes ... presented a relatively simple set of rules and patterns that a developer must follow in order to implement a durable, transactional and ... If the data read by the ...

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M Wu, W Zwaenepoel - Citeseer

... This exceptional performance shows that as the technology matures, Flash has the potential

to become very durable. A Flash chip normally operates in an EPROM-like read only mode. All other functions are initiated by ... the desired data is actually changed on the chip. Page 3. ...

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[CITATION] Write optimized object-oriented database systems

K Norvag, K Bratbergsgen - Computer Science Society, 1997. Proceedings., XVII ..., 1997

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[PDF] [Library Express-Interlibrary Loan Request](#)

[wisc.edu](#) [PDF]

R ARPACI-DUSSEAU - ACM Computing Surveys, 1981 - [pages.cs.wisc.edu](#)

... To avoid service interruption, notify your local Post Office before change of residence: for a fee ... System R recovery manager sup- ports these commands and guarantees an atomic, durable execution. ... crash or disk dropped on the floor) or by software failure (bad data written on a ...

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... Eclipse is now setup to automatically rebuild SimpleDBM whenever you change any code ... A tuple is defined as variable sized blob of data that has a unique identity within the tuple ... When reading back, the type code is used to lookup a factory for creating the object of the correct ...

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[Recovery guarantees for internet applications](#)

[psu.edu](#) [PDF]

R Barga, D Lomet, G Shegalov, G ... - ACM Transactions on ..., 2004 - [portal.acm.org](#)

... Since the sender must make its state durable, there is low cost of also taking responsibility for ensuring that the message is ... However sometimes, physical logging is inevitable, for example, when reading the real-time clock. ... Ids for processes, threads, or users may also change. ...

[Cited by 35](#) - [Related articles](#) - [All 14 versions](#)

[Representative Image](#)

S Verma, CC Wang, J Li, JS Tripoli, TL Inc - [freepatentsonline.com](#)

... it is not possible to distinguish between a dirty page write remaining from a previous transaction and a change made by ... If a transaction opens a file for read/write, then TxF requires one structure for the file, one per stream ... 9. The data structures for this open are represented in FIG ...

[Cached](#) - [All 2 versions](#)

[The Rio file cache: Surviving operating system crashes](#)

[psu.edu](#) [PDF]

PM Chen, WT Ng, S Chandra, C Aycock, G ... - Proceedings of the ..., 1996 - portal.acm.org

... When the system is rebooted, it must read the file cache contents that were present in physical ...

faults that leave the system running will propagate data to disk and hence not change the relative ...

Rio is 4-22 times as fast as systems that guarantee data permanence after each file ...

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D Shasha - cs.nyu.edu

... Must be held on durable media (eg disks). ... Low utilization reduces likelihood of overflows when there are many updates that may change the size of a record (eg string fields that have NULL values when first inserted). ... to mirror a frequently read file – or to partition a large file. ...

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Straightforward Java persistence through checkpointing

[psu.edu \[PDF\]](#)

J Howell - ... of the Eighth International Workshop on Persistent ..., 1999 - books.google.com

... If we could avoid writing out the program text and the read-only text of shared libraries, the initial ...

See Figure 4 (a). An advantage of this approach is a durable im- plementation that does not ... is

that the implementation of such a system must be modified to track each change to the ...

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[PDF] Core Technologies for Native XML Database Management Systems

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XML Native - Citeseer

... WebDAV is built on top of HTTP [28], which is also used for read access to documents. ... Page 20. ... ingredient for many other situations where data must leave the current application's address space, apart from mere data exchange: For all kinds of persistent application data that is ...

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Extending ACID semantics to the file system

[psu.edu \[PDF\]](#)

CP Wright, R Spillane, G Sivathanu, E ... - ... Transactions on Storage ..., 2007 - portal.acm.org

... Otherwise, Sendmail would abort the transaction and the file- system state would not change. ...

If a programmer informs Amino when transactions begin and end, durable performance is 173%

better ... in the directory is located close to one another, fewer pages must be read in from ...

Cited by 15 - Related articles - All 29 versions

[PDF] Distributed computing with BEA WebLogic server

[psu.edu \[PDF\]](#)

D Jacobs - Proceedings of the Conference on Innovative Data ..., 2003 - Citeseer

... The persistence tier provides durable storage in the form of databases and file systems. ... in memory after it is loaded, dur- ing which it can be freely used to satisfy read requests in ... Even if the target server immediately notices the ownership change, there is little it can do about the ...

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Scalable Database Management Software on a Cluster of Nodes Using a Shared-Distributed Flash Memory

D Dinker, AD Eckhardt, DM Ouye, BW O' ... - US Patent App. 12/ ..., 2008 - Google Patents

... GETO PUT() 128 LOCK() UNLOCK() START() ABORT() I SEND() RECEIVE() NETWORK

INTERFACE 120 FLASH MGT 108 READ() WRITEQ FLASH ... DATA ITEM AT HOME NODE | DBMS
PGM SENDS SYNC TO SDF | SDF MAKES MODIFIED DATA ITEM AVAILABLE ... Page 12 ...

All 2 versions

The expandable network disk

[mit.edu \[PDF\]](#)

RT Morris, A Muthitacharoen - 2008 - dspace.mit.edu

... addresses. This scheme offers good performance given a fixed set of servers, be- cause the system can read or write each data block by contacting just one server. However, the scheme makes these cluster storage systems inflexible during change. ...

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X Caron - 2000 - Citeseer

... 17 Mirrored Write Operation....17 Mirrored Read Operation....18 ... that has to be made durable to a ... be possible to retrieve the data in a ...

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Memory-mapped transactions

[mit.edu \[PDF\]](#)

CE Leiserson, BC Kuszmaul, J Sukha - 2005 - dspace.mit.edu

... high-quality transaction system. This result shows that the LIBXAC prototype can support durable memory-mapped transactions on a single process efficiently in an actual application. ... read in the value. For a larger program with more complicated data structures and ...

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D Myers - 2007 - Citeseer

... such as databases that require substantial amounts of high-speed, durable storage. ... In particular, we note that magnetic disk obtains between 0.9x and 2.3x the sequential read perfor- ... Table 3.1 gives a sense of how the performance of existing systems might change ...

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P* TIME: highly scalable OLTP DBMS for managing update-intensive stream workload

[psu.edu \[PDF\]](#)

SK Cha, C Song - ... conference on Very large data bases-Volume 30, 2004 - portal.acm.org

... the time to recover a database in memory and the higher durable-commit update ... In an SMP environment, these operations incur excessive coherence L2 cache misses in reading or writing ... the inherent parallelism of differential logging as two serial transactions change a data ...

Cited by 9 - Related articles - [BL Direct](#) - All 8 versions

[PDF] [Rethink the Sync](#)

[tu-dresden.de \[PDF\]](#)

JL de Iribarne - 2009 - wwwse.inf.tu-dresden.de

... problem is shared memory, where in some cases the speculation was permitted (read only shared ... It relies on making writes on RAM durable without necessity of disk access and permitting ... Conquest [WRP] is another file system that aims to change from disk to persistent RAM ...

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Better I/O through byte-addressable, persistent memory

[psu.edu \[PDF\]](#)

J Condit, EB Nightingale, C Frost, E Ipek, B ... - Proceedings of the ..., 2009 - portal.acm.org
... Since the latency of a **read** or a write is dominated by the access to the device, the ... consistency of the file system image in BPRAM, and it allows **data** to be made durable as soon as ... considered valid when it contains a non-zero inumber, this final write commits the **change** to the ...

Cited by 3 - Related articles - All 19 versions

REPLICATION OF OPERATIONS ON OBJECTS DISTRIBUTED IN A STORAGE SYSTEM

SL Broeder, GJ Bowring, JJ Collison, V Olsen, DW ... - 2010 - freepatentsonline.com
... audit trail prior to a DDL or utility operation on a particular source node are applied and **durable** before a ... In this way files that the extractor has finished **reading** are free to be recycled by TMF. ... Furthermore, any time transactions **change** in the updater, a **flush** is forced of all buffers ...

Cached

[PDF] Modelling Recovery in Database Systems

[psu.edu \[PDF\]](#)

SJG Scheuerl - School of Mathematical and Computational Sciences, ... - Citeseer
... The recovery manager ensures that on restart all updates made by committed transactions are **durable** ... **read** operations on the log during normal processing to obtain the most recent version ... **storage** for swapping updated **data**, with the overhead of performing reads during a ...

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MF Kaashoek, RT Morris, E Sit - 2008 - dspace.mit.edu
... allowing it to be deployed transparently without requiring that clients **change** their software ... how to structure a distributed hash table to provide high performance, **durable data storage** for large ... The resulting implementation of DHash scales linearly in **read** and write throughput as ...

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... high-quality **transaction** system. This result shows that the Libxac prototype can support **durable** memory-mapped transactions on a single process efficiently in an actual application. ... **read** in the value. For a larger program with more complicated **data** structures and ...

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WL Server - Management - Citeseer

... 14-3 Avoiding **Durable** Subscriptions In response to changes in message rate and other factors, these algorithms **change** batch size and delivery times. ... "Tune the Chunk Size" on page

2-2 ● "Use Optimistic or **Read-only** Concurrency" on page 2-3 ...

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[HTML] JOURNALING VERSUS SOFTU PD AT ES: ASYNCHRONOUS ME TA-DA TA PROTECTION IN FILESYSTEMS

[usenix.org](#) [HTML]

MI Seltzer, GR Ganger, MK McKusick, KA Smith, CAN ... - 2000 - usenix.org

... that focus on file systems and their performance, we do not see any **change** in this ... of the normal main memory is treated as a protected region, maintained with **read-only** protection ... it does not guarantee (as FFS does) that all meta-data operations are **durable** upon completion of ...

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Performing computationally intensive calculations within a database server that provides a recovery mechanism

L Wang - US Patent 7,305,422, 2007 - Google Patents

... Uncommitted transactions should not be **durable**. Thus, the **data** modified by the changes made by **transaction** 136 is in an inconsistent state. ... The undo record stores the specific **change** information for **data** blocks updated, deleted or modified by changes in a **transaction**. ...

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WL Server - 2002 - Citeseer

... Page 11. BEA WebLogic Server Performance and Tuning xi **Change** In JMS Server or Destination Status 15-3 Avoiding **Durable** Subscriptions "Tune the Chunk Size" on page 2-3 "Use Optimistic or **Read-only** Concurrency" on page 2-3 "Use Local Interfaces" on page 2-3 ...

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[CITATION] Mastering SQL Server 2008

M Lee, G Bieker - 2009 - Wiley-India

All 4 versions

Which kinds of OS mechanisms should be provided for database management?

P Christmann, T Härdter, K Meyer-Wegener, A ... - ... with Distributed Systems, 1987 - Springer

... as an atomic, consistent, and isolated sequence of actions (operations) with **durable** results is a ... Such an interface allows simple **read** and **write** operations of fixed-length blocks ... For example, **change** of storage technology or communication protocols affect the DBMS code. ...

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[BOOK] [Beginning Oracle Database 11g Administration: From Novice to Professional](#)

I Fernandez - 2009 - books.google.com

... 286 Flashback Data Archive 288 Flashback Database 288 LogMiner

..... 289 Data Recovery Advisor ... Page 17. ... Unfortunately, most of these books are never read, just skipped through and left to gather dust on ...

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... Enforces business rules and establishes business processes. Resource manager deals with storage, indexing, and retrieval of data necessary to support the application logic. ... Client Business processes Persist storage Page 5. 5 ... Data distribution or replication ...

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MAJ Qureshi, P Taban, S Västerås - ahmadjaved.com-a.googlepages.

... ALE: Alert Detection (It acquires data from both databases TDB and DDB, finds alert on basis of two databases, in case alert is detected) ... EDF is the most suitable for ATC system Page 18.

[5, pg 83] Conflicts can occur in transaction during read/write to TDB.

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[HTML] [Rethink the sync](#)

[usenix.org \[HTML\]](#)

EB Nightingale, K Veeraraghavan, PM Chen, ... - Proceedings of the 7th ..., 2006 - usenix.org

... This change guarantees ordering; specifically, the property that if an operation A causally precedes ... faster than disabling the drive cache since the drive cache improves read times and ... ext3, xsyncfs guarantees that the data associated with each POST request is durable before a ...

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[Affinity-based management of main memory database clusters](#)

M Ji - ACM Transactions on Internet Technology (TOIT), 2002 - portal.acm.org

... as a single operation on that machine, ie, application of the change log from the ... be leveraged to guarantee the atomic, consistent, isolated, and durable (ACID) properties ... one of the five categories: local (reading replicated columns only), read (reading nonreplicated columns ...

Cited by 11 - Related articles - All 2 versions

Maintaining and checking parity in highly available Scalable Distributed Data Structures

D Cieslicki, S Schaeckeler, T Schwarz - Journal of Systems and Software, 2009 - Elsevier

... All fields Author Search tips (Opens new window) Journal/book title. Volume Issue Page Clear
all ... Current control centers **store** this **data** on a pair of mirrored disks, but could use SDDS ... allows a much higher number of reads and can therefore accommodate **read** access from ...

[PS] Transaction Management in CoOMS

[uzh.ch \[PS\]](#)

A Geppert, S Scherrer, KR Dittrich, F ... - 1993 - ifi.uzh.ch

... transaction forests and among siblings, subtransactions "inherit" the rights to perform read or write ... Thus, in essence each parent decides whether its subtransactions are **durable**, and in ... Additionally, this (data model) layer contains a scheduler that synchronizes DML-operations ...

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Using Abstract State Machines to Model ARIES-based Transaction Processing

[jukm.org \[PDF\]](#)

M Kirchberg - Journal of Universal Computer Science, 2009 - jucs.org

... which never **change** during any run of M, and dynamic functions, which may **change** as a ... According to this scheduling rule, only those **read** and **write** operations are passed on to the ... must only be released after the effects of a **transaction's** operations have been made **durable**. ...

Cited by 1 - Related articles - All 6 versions

Communication-link-attached persistent memory system

S Fineberg, P Mehra, R Hansen - US Patent App. 10/808,138, 2004 - Google Patents

... In this manner, **read** or **write** commands are carried on RDMA-enabled SAN 106 to the nPMU's ...
In a **write** operation initiated by processor node 102, for example, once **data** have been ... 29, 2005 successfully stored in the nPMU, they are **durable** and will survive a power outage or ...

All 2 versions

[PDF] Databases

[nlc-bnc.ca \[PDF\]](#)

S Oza - 1997 - nlc-bnc.ca

... ceptually in computers. Two operations are possible on the **data**: **read** and **mite**. The **change** in the system's state is noted by writing contents of the database. An ... It is designed to handle large volume of stored **data** efficiently. -4 DBMS and a database together ...

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[PDF] The Hadoop Distributed File System

[storageconference.org \[PDF\]](#)

K Shvachko, H Kuang, S Radia, R Chansler - storageconference.org

... DataNodes in HDFS do not use **data** protection mechanisms such as RAID to make the **data durable**. ... System evolution may lead to a **change** in the format of the NameNode's checkpoint and ... However, many efforts have been put to improve its **read/write** response time in order ...

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[PDF] Coordinating access to computation and data in distributed systems

[psu.edu \[PDF\]](#)

DL Thain - 2004 - Citeseer

... distinct entities: one service did not know about the other. Accesses to the file server by programs

succeeded or failed solely on their own terms. A failure to read or write data would Page 27. 17

be exposed to the program and had no direct bearing on access to the CPU. ...

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[PDF] Building a Database in the Cloud

[ethz.ch \[PDF\]](#)

M Brantner, D Florescu, DA Graf, D Kossmann, T ... - dbis.ethz.ch

... **Read**(key as uid, uri as string): Reads the payload data of a record given the key of the record and the URI of the collection. ... The only way to **change** a key of 14 ... We use the term **transaction** for a sequence of **read**, update, and create requests between two commit or abort calls. ...

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... its predecessor or successor to generate repairs every ten minutes or when these servers **change**. ... of costs from repetitive article transmission and replication of un-read articles in ... [16] Haeberlen, A., Mislove, A., and Druschel, P. Glacier: Highly **durable**, decentralized storage ...

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E Sit, R Morris, MF Kaashoek - usenix.org

... its predecessor or successor to generate repairs every ten minutes or when these servers **change**. ... of costs from repetitive article transmission and replication of un-read articles in ... [16] Haeberlen, A., Mislove, A., and Druschel, P. Glacier: Highly **durable**, decentralized storage ...

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Operating systems transactions

[psu.edu \[PDF\]](#)

DE Porter, OS Hofmann, CJ Rossbach, A ... - Proceedings of the ..., 2009 - portal.acm.org

... the system can always roll back to a pre-**transaction** state) and **durable** (trans- action results ... The presence of system transactions does not change the behav- ior of non-transactional ... 3.2 TxOS overview TxOS implements system transactions by isolating **data** read and written in a ...

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[BOOK] Transactional information systems: theory, algorithms, and the practice of concurrency control and recovery

[sigmod.org \[PDF\]](#)

G Weikum, G Vossen - 2002 - books.google.com

... Protocol 205 5.5.3 The MVSGT Protocol 209 5.5.4 A Multiversion Protocol for **Read-Only**

Transactions ... Large Objects 562 15.2.1 Logical Log Entries for the Redo of Index Page Splits

562 ... 2 Database Restore Algorithms 599 16.2.3 Analysis of the Mean Time to **Data Loss** 602 ...

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Network distributed tracking wire transfer protocol

JK Overton, SW Bailey - US Patent App. 11/354,224, 2006 - Google Patents

... Page 14. US 2007/0011267 Al Jan. ... Relationships between identification strings and location strings can be dynamically and spontaneously manipulated thus allowing the corresponding data relation- ships also to **change** dynamically, spontaneously, and effi- ciently. ...

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DE Lowell - 1999 - Citeseer

... even in this limited domain they accept the loss of the last few seconds of new file data). In partic- ...
model in describing the problem of failures, and the challenges of recovering from them. [Page](#)

22. 10 ... cesses as finite state machines that **change** state in response to inputs. ...

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[\[BOOK\]](#) Building Client-Server Applications with Visual FoxPro and SQL Server 7.0

C Urwiler, G DeWitt, M Levy, L Koorhan, C Caron - 2000 - books.google.com

... Inside of a dog, it's too dark to **read**." Whil Hentzen Hentzenwerke Publishing August, 2000 ... Source

Code & .CHM Files." (The text for this link may **change** over time ... SQL Server transactions 196

Implicit transactions 196 SQL Server isolation levels 198 Durable transactions 200 ...

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[\[HTML\]](#) Recent Filesystem Optimisations in FreeBSD

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I Dowse, D Malone - usenix.org

... Consequently, some operations which have traditionally been **durable** on system call return are no longer so. ... indexes have the disadvantage that once you commit to one, you cannot **change** its format. ... A **transaction** can either be a file create, delete, **read** or append operation. ...

Cited by 21 - [Related articles](#) - [Cached](#) - All 23 versions

Secure kernel transactions

J Cargille, S Verma, MJ Zbikowski, WR ... - US Patent 7,591,015, 2009 - Google Patents

... an outcome for a **transaction** has been determined, the result is guaranteed never to **change** (durability ... Thus alerted, RM prepares 310 by rendering resource **data** in a **durable** state so that ... then records the outcome in an associated log, and the underlying resource **data** is either ...

[Related articles](#) - All 3 versions

[\[PDF\]](#) Workshop on Transactional Memory Workloads

[uiuc.edu \[PDF\]](#)

C Sponsorship - freya.cs.uiuc.edu

... No understanding of the exact implementation of the task or the **data** structures is needed. ... This case is rare as the **read-modify-write** operation is fast and has a low penalty (it ... transactions is that the programmer must be very careful when using them as they **change** the atomicity ...

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[\[BOOK\]](#) MySQL: the complete reference

V Vaswani - 2004 - books.google.com

... you might prefer to see this book as a desktop reference, flipping it open on an as-needed basis to **read** about specific ... Real-world examples include an interactive command-line SQL client and an interactive expense tracker that supports **data** entry and simple report ... [Page](#) 21. ...

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[PDF] [Providing Fault Tolerance for Transactional Web Services](#)

[psu.edu](#) [PDF]

I Vasquez, JA Miller, K Verma - Citeseer

... ReadOnly Notifies the coordinator about a participant operation that did not change the state of ... tracing pre- and post- images of the data, only the operations performed against it are ... on behalf of a transaction (including those resulting in a negative vote, read-only operations ...

Related articles - [View as HTML](#) - All 9 versions

[PDF] [Efficient Commit Processing in High-Availability Main-Memory Databases](#)

[ntnu.no](#) [PDF]

H Koltveit - 2008 - id.i.ntnu.no

... This gives a load of almost 3900 read transactions per second. ... In addition, to maintain consistency, the system must maintain a backup of the data of the crashed process. ... worse, since a backup replica of the client would take over the processing, and this change is transparent ...

Related articles - [View as HTML](#) - All 4 versions

[PDF] [Building an extensible operating system](#)

[psu.edu](#) [PDF]

CA Small - 1998 - Citeseer

... to applications, as if they were standard files, but the auto- compression implementations of read and write ... to communi- cate with the receiving domain, it is necessary to move data from the ... informed that a different process is in context, which can entail switching page tables and ...

Cited by 8 - Related articles - [View as HTML](#) - All 5 versions

[PDF] [Cluster storage for commodity computation](#)

[psu.edu](#) [PDF]

RG Ross - Proceedings of the 1st USENIX Workshop on - Citeseer

... As usage patterns change, the partition boundaries are updated dynamically, with urgent changes made quickly and more ... 159 7.1.3 Read-only territory grants ... simulations, and graphics rendering farms are all characterised by repetitive computa- tions over huge data sets, and ...

Cited by 2 - Related articles - [View as HTML](#) - All 7 versions

Optimistic replication

[psu.edu](#) [PDF]

Y Saito, M Shapiro - ACM Computing Surveys (CSUR), 2005 - portal.acm.org

... mirroring [Nakagawa 1996; Krasel 2000] let a replica be added with no change to ex ... try to increase the system's throughput by, for example, letting transactions read values produced by ... Isolated (interme- diate state is not observable by other transactions), and Durable (the final ...

Cited by 340 - Related articles - All 39 versions

[PDF] [Speculative execution within a commodity operating system](#)

[psu.edu](#) [PDF]

EB Nightingale - 2007 - Citeseer

... For example, writing data to disk could be internal as long as a commit never occurs (ie, the durable changes can be ... is marked as speculative and the data associated with the action is buffered within the kernel. ... ments where resource usage may change drastically? ...

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Results 1 - 62 of 62. (0.28 sec)

eNVy: a non-volatile, main memory storage system

[postech.ac.kr \[PDF\]](#)

M Wu, W Zwaenepoel - ... of the sixth international conference on ..., 1994 - portal.acm.org

... nology matures, Flash has the potential to become very **durable**. A Flash chip normally operates in an EPROM-like **read only** mode. All other functions are initiated by ... ally involves a series of program and verify steps until the desired **data** is actually changed on the chip. ...

[Cited by 232](#) - [Related articles](#) - [BL Direct](#) - [All 7 versions](#)

[\[HTML\]](#) [Berkeley db](#)

[usenix.org \[HTML\]](#)

MA Olson, K Bostic, M Seltzer - ... of the FREEUNIX Track: 1999 USENIX ..., 1999 - usenix.org

... **Read-only** applications can use Berkeley DB's memory-mapped file service to improve performance on most architectures. Configurable **page size**. ... They must be **durable**. ... When it finishes, the database will contain every **change** made by every **transaction** that ever committed. ...

[Cited by 187](#) - [Related articles](#) - [Cached](#) - [All 16 versions](#)

Integrating temporal, real-time, an active databases

[psu.edu \[PDF\]](#)

K Ramamritham, R Sivasankaran, JA Stankovic, ... - ACM Sigmod ..., 1996 - portal.acm.org

... purposes, some of the sensor readings and actuator control settings may be archived, that is, made **durable**. ... to NV-RAM if the validity is long enough for a NV-RAM write and **read**. ... Temperatures typical **change** slowly, but the values are used for many other critical calculations. ...

[Cited by 51](#) - [Related articles](#) - [BL Direct](#) - [All 5 versions](#)

Natix: A technology overview

[psu.edu \[PDF\]](#)

T Fiebig, S Helmer, CC Kanne, G Moerkotte, J ... - Web, Web-Services, ..., 2002 - Springer

... Each record is identified by a slot number which does not **change** even if the ... pro- cessing depends on primitives based on the proven foundation of atomic, **durable** and serializable ... The log manager provides the routines to write and **read** log records, synchronizing access of ...

[Cited by 19](#) - [Related articles](#) - [BL Direct](#) - [All 12 versions](#)

[PDF] The recovery manager of a data management system

[psu.edu \[PDF\]](#)

JN Gray, P McJones, M Blasgen, RA Lorie, TG ... - IBM Research Report ..., 1979 - Citeseer

... is complicated to program and has the problem that the flight status may **change** during the ... application programs using the RDS can construct groups of RSS actions which are atomic and

durable ... To see why this is necessary, suppose a **read lock** on a record were released by ...

[Cited by 33](#) - [Related articles](#) - [View as HTML](#) - [All 5 versions](#)

Method and apparatus for insuring database **data** integrity without **data** recovery logging

RW Lyle, JZ Teng, JA Yothers - US Patent 6,651,073, 2003 - Google Patents

... In order to make such a database system **persistent** or "durable", the **data** pages must be ... Unlike non-distributed databases where a single **change** is, or is not, made locally, all ... single thread process on the entire table and, consequently, it prevents concurrent **read/write** access ...

[Cited by 3](#) - [Related articles](#) - [All 2 versions](#)

[psu.edu \[PDF\]](#)

Anatomy of a native XML base management system

T Fiebig, S Helmer, CC Kanne, G Moerkotte, J ... - The VLDB Journal, 2002 - Springer

... Special calls exist to avoid I/O for **reading** or writing newly allocated or deallocated pages ... a regular slotted **page** implementation, which maintains a collection of variable- length records on a **data page**. Each record is identified by a slot number which does not **change** even if the ...

[Cited by 177](#) - [Related articles](#) - [All 23 versions](#)

[microsoft.com \[PPT\]](#)

[BOOK] Transaction processing: concepts and techniques

J Gray, A Reuter - 1993 - books.google.com

... LAN RPC random **read** memory record 1,000 - " local RFC sequential write record mcmofl process dispatch sequential **read** record 100 ... of the TP Monitor 312 6.3.1 The Central **Data Structures** of the TPOS 313 **Data Structures** Owned ... ii Contents 6.4.2 **Durable Request Queues** ...

[Cited by 3488](#) - [Related articles](#) - [Library Search](#) - [All 6 versions](#)

[usenix.org \[HTML\]](#)

[HTML] Journaling versus soft updates: Asynchronous meta-**data** protection in file systems

MI Seltzer, GR Ganger, MK McKusick, KA ... - USENIX Annual ..., 2000 - usenix.org

... that focus on file systems and their performance, we do not see any **change** in this ... of the normal main memory is treated as a protected region, maintained with **read-only** protection ... it does not guarantee (as FFS does) that all meta-**data** operations are **durable** upon completion of ...

[Cited by 165](#) - [Related articles](#) - [Cached](#) - [All 24 versions](#)

[CITATION] Implementing atomicity in two systems: techniques, tradeoffs, and experience

LF Cabrera, JA McPherson, PM Schwarz, JC Wyllie - IEEE Transactions on Software ..., 1993

[Cited by 19](#) - [Related articles](#) - [BL Direct](#) - [All 8 versions](#)

Method and apparatus for efficiently recovering from a failure in a database that includes unlogged objects

RW Lyle, JZ Teng, JA Yothers - US Patent 6,567,928, 2003 - Google Patents

... In order to make such a database system **persistent** or "durable", the **data** pages must ... Unlike non-distributed databases where a single **change** is, or is not, made locally, all ... US 6,567,928 BI table and, consequently, it prevents concurrent **read/write** access by other applications ...

[Cited by 6](#) - [Related articles](#) - [All 2 versions](#)

Checkpoint methods and systems utilizing non-disk **persistent** memory

GS Smith, SA Fineberg, P Mehra, R ... - US Patent App. 10/ ..., 2004 - Google Patents

... In this manner **read** or write commands are carried on RDMA-enabled SAN 306 to the CPMU's network interface (NI) 308. ... In a write operation initiated by processor node 302, for example, once **data** have been successfully stored in the CPMU, they are **durable** and will ...

All 2 versions

The design and implementation of a multilevel secure **log manager**

VR Pesati, TE Keefe, S Pal - sp, 1997 - computer.org

... However, it is possible with a minor **change** in the way paths are selected. ... It returns the **durable** LLSN which is on WADS for that level. The **log-open-cursor** interface provides a way of opening a cursor for reading log records. ...

Cited by 8 - Related articles - BL Direct - All 6 versions

[PDF] File system extensibility and reliability using an in-kernel database

[psu.edu](#) [PDF]

A Kashyap - Master's Thesis, State University of New York, Stony ..., 2004 - Citeseer

... A simple **change** such as adding an extra inode attribute for inode creation time would be difficult ...

The database files can exist on any file system that provides standard **read-write** capabilities. ...

Using the O SYNC option with open(2) provides **durable** writes, while also having the ...

Cited by 10 - Related articles - View as HTML - All 22 versions

[PDF] A Snapshot Utility for a Distributed Object-Oriented Database System

[mit.edu](#) [PDF]

CH Moh - 2002 - pmg.lcs.mit.edu

... The Anti-MOB saves the state of **data** objects before they are modified so that the OR can later undo the modifications from a **page** on the disk to ... The MOB improves performance of the system by allowing installation **read** to be performed in a background flusher thread. ...

Related articles - View as HTML - All 4 versions

[PDF] Sorting and Indexing with Partitioned B-trees

[psu.edu](#) [PDF]

G Graefe - Proc. of the 1st Int'l Conference on Innovative Data ..., 2003 - Citeseer

... traditional implementation of partitioning, each creation or removal of a partition is a **change** of the ... contain 1,000 records), and merge those at a cost of 9,000 records **read**, merged, and ... The initial **data** transfer (prior to committing the initial index) may omit **data** log- ging, similar ...

Cited by 38 - Related articles - View as HTML - All 4 versions

The impacts of write-through procedures and checkpointing on real-time concurrency control

[psu.edu](#) [PDF]

TW Kuo, YH Hou, KY Lam - The Computer Journal, 2003 - Br Computer Soc

... Logical logging can **change** a long physical log into a record of only a few words [12]. ... Before a **transaction** reads (or writes) a **data** object, it must first **read-lock** (or **write-lock**) the ... the former **data** object is not later than the corresponding unlocking operation of the latter **data** object ...

Cited by 3 - Related articles - BL Direct - All 11 versions

Method and apparatus for incremental undo

B Nainani, GC Ngai, W Huang, JD Klein, RJ ... - US Patent ..., 2001 - Google Patents

... Uncommitted transactions should not be **durable**. ... chip or cartridge, a carrier wave as described hereinafter, or any other medium from which a computer can **read**. ... then undo information from the rollback entry is retrieved from the undo record and a **change** is generated for the ...

Cited by 9 - Related articles - All 2 versions

[PDF] Write optimized object-oriented database systems

[psu.edu](#) [PDF]

K Nørvåg, K Bratbergsengen - Conf. of the Chilean Computer Science ..., 1997 - Citeseer

... When a **transaction** is committed, the **data** should really be **durable**. ... Traditional clustering works well as long as the access pattern is static, but if this happens to **change**, or access pattern is ... This block holds static volume information, and is only **read** when the system is started. ...

Cited by 4 - Related articles - View as HTML - All 7 versions

[CITATION] Write optimized object-oriented database systems

K Norvag, K Bratbergsengen - Computer Science Society, 1997. Proceedings., XVII ..., 1997

Cited by 1 - Related articles - All 3 versions

[PDF] Library Express-Interlibrary Loan Request

[wisc.edu](#) [PDF]

R ARPACI-DUSSEAU - ACM Computing Surveys, 1981 - pages.cs.wisc.edu

... To avoid service interruption, notify your local Post Office before **change** of residence: for a fee ... System R recovery manager supports these commands and guarantees an atomic, **durable** execution. ... crash or disk dropped on the floor) or by software failure (bad **data** written on a ...

Related articles - All 4 versions

Recovery guarantees for internet applications

[psu.edu](#) [PDF]

R Barga, D Lomet, G Shegalov, G ... - ACM Transactions on ..., 2004 - portal.acm.org

... Since the sender must make its state **durable**, there is low cost of also taking responsibility for ensuring that the message is ... However sometimes, physical logging is inevitable, for example, when **reading** the real-time clock. ... IDs for processes, threads, or users may also **change**. ...

Cited by 35 - Related articles - All 14 versions

The Rio file cache: Surviving operating system crashes

[psu.edu](#) [PDF]

PM Chen, WT Ng, S Chandra, C Aycock, G ... - Proceedings of the ..., 1996 - portal.acm.org

... When the system is rebooted, it must **read** the file cache contents that were present in physical ... faults that leave the system running will propagate **data** to disk and hence not **change** the relative ... Rio is 4-22 times as fast as systems that guarantee **data** permanence after each file ...

Cited by 168 - Related articles - BL Direct - All 57 versions

Straightforward Java persistence through checkpointing

[psu.edu](#) [PDF]

J Howell - ... of the Eighth International Workshop on Persistent ..., 1999 - books.google.com

... If we could avoid writing out the program text and the **read-only** text of shared libraries, the initial ...

See Figure 4 (a). An advantage of this approach is a **durable** im- plementation that does not ... is

that the implementation of such a system must be modified to track each **change** to the ...

Cited by 22 - Related articles - All 33 versions

[\[PDF\]](#) Distributed computing with BEA WebLogic server

[psu.edu](#) [PDF]

D Jacobs - Proceedings of the Conference on Innovative Data ..., 2003 - Citeseer

... The persistence tier provides **durable storage** in the form of databases and file systems. ... in memory after it is loaded, dur- ing which it can be freely used to satisfy **read** requests in ... Even if the target server immediately notices the ownership **change**, there is little it can do about the ...

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[\[PDF\]](#) Object-Oriented Stable Storage

[psu.edu](#) [PDF]

X Caron - 2000 - Citeseer

... 17 Mirrored Write Operation.....17 Mirrored Read Operation.....18 ... that has to be made **durable** to a ... be possible to retrieve the **data** in a ...

[View as HTML](#) - All 7 versions

[P*](#) TIME: highly scalable OLTP DBMS for managing update-intensive stream workload

[psu.edu](#) [PDF]

SK Cha, C Song - ... conference on Very large data bases-Volume 30, 2004 - portal.acm.org

... the time to recover a database in memory and the higher **durable-commit** update ... In an SMP environment, these operations incur excessive coherence L2 cache misses in **reading** or writing ... the inherent parallelism of differential logging as two serial transactions **change** a data ...

Cited by 9 - Related articles - BL Direct - All 8 versions

[\[HTML\]](#) JOURNALINGVERSUSOFTU PD AT ES: ASYNCHRONOUSME TA-DA TA PROTECTION INFILESYSTEMS

[usenix.org](#) [HTML]

MI Seltzer, GR Ganger, MK McKusick, KA Smith, CAN ... - 2000 - usenix.org

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WL Server - 2002 - Citeseer

... Page 11. BEA WebLogic Server Performance and Tuning xi **Change** In JMS Server or Destination Status 15-3 Avoiding Durable Subscriptions "Tune the Chunk Size" on page 2-3 "Use Optimistic or **Read-only** Concurrency" on page 2-3 "Use Local Interfaces" on page 2-3 ...

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[Which kinds of OS mechanisms should be provided for database management?](#)

P Christmann, T Härdter, K Meyer-Wegener, A ... - ... with Distributed Systems, 1987 - Springer

... as an atomic, consistent, and isolated sequence of actions (operations) with **durable** results is

a ... Such an interface allows simple **read** and write operations of fixed-length blocks ... For example, **change of storage technology** or communication protocols affect the DBMS code. ...

[Cited by 3 - Related articles](#) - [All 5 versions](#)

Affinity-based management of main memory database clusters

M Ji - ACM Transactions on Internet Technology (TOIT), 2002 - portal.acm.org

... as a single operation on that machine, ie, application of the **change log** from the ... be leveraged to guarantee the atomic, consistent, isolated, and **durable** (ACID) properties ... one of the five categories: local (**reading** replicated columns only), **read** (**reading** nonreplicated columns ...

[Cited by 11 - Related articles](#) - [All 2 versions](#)

[PS] Transaction Management in CoOMS

[uzh.ch \[PS\]](#)

A Geppert, S Scherrer, KR Dittrich, F ... - 1993 - ifi.uzh.ch

... **transaction forests** and among **siblings**, subtransactions "inherit" the rights to perform **read** or **write** ... Thus, in essence each parent decides whether its subtransactions are **durable**, and in ... Additionally, this (**data model**) layer contains a scheduler that synchronizes DML-operations ...

[Cited by 3 - Related articles](#) - [View as HTML](#) - [All 3 versions](#)

Communication-link-attached persistent memory system

S Fineberg, P Mehra, R Hansen - US Patent App. 10/808,138, 2004 - Google Patents

... In this manner, **read** or write commands are carried on RDMA-enabled SAN 106 to the nPMU's ... In a write operation initiated by processor node 102, for example, once **data** have been ... 29, 2005 successfully stored in the nPMU, they are **durable** and will survive a power outage or ...

[All 2 versions](#)

[PDF] Dat abases

[nlc-bnc.ca \[PDF\]](#)

S Oza - 1997 - nlc-bnc.ca

... ceptually in computers. Two operations are possible on the **data**: **read** and **mite**. The **change** in the system's state is noted by writing contents of the database. An ... It is designed to handle large volume of stored **data** efficiently. -4 DBMS and a database together ...

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[PDF] Coordinating access to computation and **data** in distributed systems

[psu.edu \[PDF\]](#)

DL Thain - 2004 - Citeseer

... distinct entities: one service did not know about the other. Accesses to the file server by programs succeeded or failed solely on their own terms. A failure to **read** or **write** **data** would Page 27. 17 be exposed to the program and had no direct bearing on access to the CPU. ...

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[BOOK] Transactional information systems: theory, algorithms, and the practice of concurrency control and recovery

[sigmod.org \[PDF\]](#)

G Weikum, G Vossen - 2002 - books.google.com

... Protocol 205 5.5.3 The MVSGT Protocol 209 5.5.4 A Multiversion Protocol for Read-Only Transactions ... Large Objects 562 15.2.1 Logical Log Entries for the Redo of Index Page Splits 562 ... 2 Database Restore Algorithms 599 16.2.3 Analysis of the Mean Time to Data Loss 602 ...
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[PDF] Theory and Practice of Failure Transparency

DE Lowell - 1999 - Citeseer

... even in this limited domain they accept the loss of the last few seconds of new file **data**). In particular, the model in describing the problem of failures, and the challenges of recovering from them. [Page 22](#). 10 ... cesses as finite state machines that **change** state in response to inputs. ...

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[BOOK] Building Client-Server Applications with Visual FoxPro and SQL Server 7.0

C Urwiler, G DeWitt, M Levy, L Koorhan, C Caron - 2000 - books.google.com

... Inside of a dog, it's too dark to **read**." Whil Hentzen Hentzenwerke Publishing August, 2000 ... Source Code & .CHM Files." (The text for this link may **change** over time ... SQL Server transactions 196 Implicit transactions 196 SQL Server isolation levels 198 Durable transactions 200 ...

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... you might prefer to see this book as a desktop reference, flipping it open on an as-needed basis to **read** about specific ... Real-world examples include an interactive command-line SQL client and an interactive expense tracker that supports **data** entry and simple report ... [Page 21](#). ...

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CA Small - 1998 - Citeseer

... to applications, as if they were standard files, but the auto-compression implementations of **read** and write ... to communicate with the receiving domain, it is necessary to move **data** from the ... informed that a different process is in context, which can entail switching **page** tables and ...

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[PDF] Transaction Support for Design Processes

A Geppert, F Datenbanktechnologie - 1992 - Citeseer

... Supervising **Change** and Consistency In a design process, inconsistency can result from an individual ... Committed subtransactions are **durable**, while in case of a crash each active subtransaction is ... to tell the system that the respective colleague is allowed to **read** (and modify ...

[View as HTML](#) - [All 5 versions](#)

[vxu.se \[PDF\]](#)

[PDF] Monitoring Distributed Component-based Systems

M Persson - Reports from MSI, 2001 - vxu.se

... originate from the airplane industry where **data** is monitored and stored in a durable box, the ... A traceable component has to expose an interface to **change** properties of the tracing mechanism. ... In a layered architecture faults that originates from the **data** layer can be difficult to find ...

[Cited by 1](#) - [Related articles](#) - [View as HTML](#) - [All 9 versions](#)

[psu.edu \[PDF\]](#)

M Satyanarayanan - ACM Transactions on Computer Systems (..., 2002 - portal.acm.org
... Surprisingly, this archi- tectural inheritance has proven to be robust and **durable** over a long evolution, and a shift in focus from high ... 3.2.1 **Read** Protocol. ... Updates to **data** structures in RVM-backed regions of a server's address space are guaranteed to be atomic and permanent. ...

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[\[PDF\]](#) Oracle9i Application Server Best Practices, Release 2 (9.0.3) Part No. B10578-02 Copyright© 2003 Oracle Corporation. All rights reserved. Contributing Author: ...

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MP Mensah, D Panda, J Pepper, S Prasad, K Radage, ... - 2003 - Citeseer
... The information contained in this document is subject to **change** without notice. ...
3-26 3.4.9 Create a Cache with **Read Only** EJBs..... ... 3-42 3.5.16 Set the Maximum Number of Connection Attempts in **Data Sources**..... ...

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Method and system for transacted file operations over a network

PJ Madhavarapu, S Pardikar, BS Raman, S ... - US Patent App. 10/ ..., 2003 - Google Patents
... Typical file operations include creating a new file, **reading** a file, writing a file, copying a file, renaming a file, etc. ... **Page** 14. ... **Buffer** for the file name, which is aligned in the **data buffer** to a DWORD (4 bytes) boundary The name of the file (not NUL terminated) [0032] [0033] TABLES ...

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[\[BOOK\]](#) Hibernate: a developer's notebook

J Elliott - 2004 - books.google.com
... RepKover, This book uses RepKover; a **durable** and flexible lay-flat binding ... 1.5.1; you may want to create a symbolic link to make it easier to work with, and to avoid the need to **change** any environ ... If you're new to Ant, it wouldn't be a bad idea to **read** the manual a little bit to get a ...

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ABE Panagos - 1993 - Citeseer

... Objects can be accessed either via byte-range operations such as **read**, write, append, insert bytes ... almost the same to that of an in-memory dereference of a pointer to resident **data**. This is because **persistent** objects can be manipulated directly on the **page** on which they reside ...

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[redhat.com \[PDF\]](#)

[PDF] [Configuration Guide](#)

JBEA Platform - 2002 - redhat.com

... A Pub-Sub With Durable Topic Example 216 1.4. ... The basic idea behind open source is very simple: When programmers can **read**, redistribute, and modify the ... Of course, you should **change** local to remote if the bean interface is annotated with @Remote and ...

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[BOOK] [Building SANs with Brocade fabric switches](#)

C Beauchamp, J Judd, B Kuo - 2001 - books.google.com

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[PDF] [State of the Art in Enablers for Applications in Future Mobile Wireless Internet](#)

J Kangasharju, T Lindholm, K Raatikainen, S Tarkoma - 2002 - cs.helsinki.fi

... In a hospital, when the **reading** of a sensor attached to a patient exceeds a given threshold and a new drug has been ... well-defined structure, for example a set of ordered strings, and generic events do not have an expressive structure (**data type** any ... Event order may not **change**. ...

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... This book uses RepKover™, a **durable** and flexible lay-flat binding ... We encourage those who don't to **read** other books from the O'Reilly catalogue that cover the entire ... Chapter 5 looks at WebLogic's support for JDBC connection pools and how **data sources** enable you to access ...

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[PDF] [Improving File System Performance With Adaptive Methods](#)

JN Matthews - 1999 - Citeseer

... optimized system by suggesting targeted improvements to existing **data** layout. Together, these optimizations allow disk layout to **change** over time to support efficient **read** access and enable the system to balance the competing demands of **read** and write access. Page 26. 11 ...

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